

# Why Did the Dog Have to Go to Court?

Write the prime factorization for each number. Find your answer in the answer list.  
Write the letter of the answer in each box containing the number of the exercise.

<div>1</div> <div>30</div> <div></div>	<div>2</div> <div>42</div> <div></div>	<div>3</div> <div>18</div> <div></div>	<b>Answers 1 – 3:</b> <div>Y</div> $2^2 \times 5$ <div>A</div> $2 \times 3 \times 5$ <div>T</div> $2 \times 3^2$ <div>C</div> $3^2 \times 5$ <div>I</div> $2 \times 3 \times 7$	
<div>4</div> <div>50</div> <div></div>	<div>5</div> <div>24</div> <div></div>	<div>6</div> <div>45</div> <div></div>		<b>Answers 4 – 6:</b> <div>O</div> $3^2 \times 5$ <div>M</div> $2^2 \times 5$ <div>N</div> $2 \times 5^2$ <div>G</div> $2 \times 3 \times 5^2$ <div>E</div> $2^3 \times 3$
<div>7</div> <div>84</div> <div></div>	<div>8</div> <div>66</div> <div></div>	<div>9</div> <div>80</div> <div></div>		

- 10

 63  

11

 48  

12

 39  

13

 88  

14

 144

## Answers 10 – 14:

- |                              |                                    |
|------------------------------|------------------------------------|
| <div>S</div> $2^3 \times 5$  | <div>I</div> $3^2 \times 7$        |
| <div>G</div> $3 \times 13$   | <div>K</div> $2^4 \times 3^2$      |
| <div>N</div> $3^2 \times 11$ | <div>T</div> $2^3 \times 11$       |
| <div>A</div> $2^4 \times 3$  | <div>E</div> $2 \times 3 \times 7$ |

- 15

 120  

16

 98  

17

 64  

18

 650  

19

 1,000

## Answers 15 – 19:

- |                             |                                       |
|-----------------------------|---------------------------------------|
| <div>T</div> $2 \times 7^2$ | <div>G</div> $2^3 \times 3 \times 5$  |
| <div>N</div> $2^4 \times 3$ | <div>B</div> $2^3 \times 5^3$         |
| <div>R</div> $2^6$          | <div>S</div> $2 \times 3^2 \times 7$  |
| <div>L</div> $3^4 \times 5$ | <div>K</div> $2 \times 5^2 \times 13$ |

10	3	15	6	8	11	19	1	17	14	7	4	12	16	2	9	18	5	13
----	---	----	---	---	----	----	---	----	----	---	---	----	----	---	---	----	---	----